

# Single orbits and the Wiener-Wintner theorem

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A “single orbit” approach to dynamics is the study of the interplay between the global properties of a dynamical system and the behaviour of its orbits. During the talk, I will discuss how much information about the system can be deduced from the existence of an orbit satisfying the conclusion of the Wiener-Wintner theorem (Wiener-Wintner generic orbit). I will present an Oxtoby type criterion for being a Wiener-Wintner generic point and will use it to characterise the spectrum of an invariant measure generated by such a point.

The talk is based on joint work with Melih Emin Can, Dominik Kwietniak and Piotr Oprocha.